

Self Instructional Module and Cardiac Angiography

Effectiveness of Self Instructional Module on Cardiac Angiography for Patients undergoing Cardiac Angiography in a Selected Hospital

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At the threshold of the new millennium coronary artery disease is looming largely as a new epidemic afflicting Indians at a relatively younger age with severe and diffuse forms of lesions. The disease, premature coronary artery disease is defined as cardiac events occurring before the age of 55 years in men and 65 years in women, in its severe forms it is occurring below the age of 40 years. Indians also show higher incidence of hospitalisation, morbidity and mortality than other ethnic groups. Education programme for cardiac patients is an essential part of quality health care today. Hence, the effectiveness of therapeutic regimen to be beneficial, patient must be informed about their own health and motivated to share responsibility in maintaining good health. Cardiac Angiography is a unique physiological and psychological experience for the patient. The nurse who knows and understands the steps involved in the procedure or should instruct the patients with adequate information so as to prevent or minimize its adverse effects. Keeping in view the needs and importance of educating the patients the investigator felt the urge of preparing Self Instructional Module (SIM) for patients undergoing cardiac angiography procedure.

Objectives

The objectives of the study were to:

- ◆ Determine the knowledge and anxiety level of patients undergoing Cardiac Angiography be-

fore and after administration of SIM.

- ◆ Find out the effectiveness of SIM in terms of gain in knowledge scores and reduction in anxiety scores as expressed by the patients.
- ◆ Find association between gain in knowledge scores and reduction in anxiety scores with selected demographic variables like age, sex, educational status, family history of heart disease and duration of present cardiac illness.

Methodology

The conceptual framework adopted for the study was based on system model by Von Bertalanffy. The study was carried out in three phases. A descriptive and evaluative approach was adopted for the study. The study was conducted at Holy Family Hospital and Research Center, Bandra, Mumbai. In Phase I pretest data was collected, Phase II posttest data was collected and phase III was data analysis. Sample consisted of 50 cardiac patients using non-probability purposive sampling technique. An pre experimental, pretest-posttest design was used. Tool-1 demographic Performa consisted of 12 items such as -age, sex, educational status, marital status, religion, economic status, life style-smoking, dietary pattern, family history of heart disease, duration of present cardiac illness. Tool -2 : structured knowledge questionnaire on cardiac angiography procedure consisted of 30 items covering 6 areas such as- structure and function of heart and its blood vessels, mean-

ing of coronary artery disease and risk factors and its symptoms, meaning and indications of cardiac angiography, pre and post procedure patient care, and complications. Tool -3: Anxiety questionnaire based on modified Hamilton Anxiety scale consisted of four areas such as -emotional, intellectual, physical, and autonomic. The tool was found reliable ($r = 0.87$, knowledge questionnaire) and ($r = 8.9$, anxiety questionnaire).

Analysis and Findings

The data was analyzed using descriptive and inferential statistics. The main findings of the study were: most of the subjects (40%) were in the age group of 45-56 yrs; majority (76%) were males; 40% were graduates and 84% were married; 64% of the subjects belonged to Hindu religion; 72% were vegetarian; 70% had history of cardiac illness one year or less than one year of duration. Pretest knowledge score (17.84) and mean posttest knowledge scores (29.30); ' $t_{(40)} = 20.76$; $p < 0.05$. The mean pretest anxiety scores (55.66) and mean posttest anxiety score (35.73); ' $t_{(40)} = 9.89$; $p < 0.05$. There was a significant association between the selected variables and knowledge scores in the area of family history of heart disease ($\chi^2_{(1)} = 4.458$; $p < 0.05$.) and in the area of duration of present cardiac illness one year or less than one year of duration ($\chi^2_{(1)} = 3.93$; $p < 0.05$). There was a significant association between the selected variables and anxiety scores in the area of family history of heart disease ($\chi^2_{(1)} = 4.083$, $p < 0.05$). There was significant difference between the mean pretest (17.48), posttest (29.30) knowledge scores and the mean pre-

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test anxiety score (55.66) and the mean posttest anxiety score (35.73) of subjects, revealing the effectiveness of SIM.

Conclusion and Implications

The study concluded that the SIM was effective in increasing the knowledge of the subjects and in reducing the anxiety of the subjects undergoing cardiac angiography procedure.

Nurses play a vital role in health care delivery system and today more emphasis is given on self reliance and the clients participation in health care system. By using teaching strategies that are best suited to the clients, nurses can motivate them to improve their knowledge and cooperate with the diagnostic procedures. SIM should encourage the nurses in providing information to CAD patients undergoing cardiac invasive proce-

dures like cardiac angiography procedure.

Nurses administrator should take adequate steps in formulating policies in providing patients education and also plan for manpower, money, material, methods and time to conduct successful and useful patient educational materials.

Research studies can be conducted in cardiac Nursing Units to take up projects on new methods of teaching, focusing on people interest, its quality and cost effectiveness.

Recommendations

Similar study can be conducted with a control group using a larger population of the community. The study can be conducted in two different hospitals with similar facilities.

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